

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 08-083487

(43)Date of publication of application : 26.03.1996

(51)Int.Cl.

G11C 11/409

H01L 27/04

H01L 21/822

H01L 27/06

(21)Application number : 06-215658

(71)Applicant : MITSUBISHI ELECTRIC CORP

(22)Date of filing : 09.09.1994

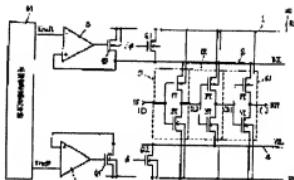
(72)Inventor : ARIMOTO KAZUTAMI  
TSUKIDE MASAKI

## (54) SEMICONDUCTOR INTEGRATED CIRCUIT DEVICE

## (57)Abstract:

**PURPOSE:** To prevent the increase of access delay while reducing the current consumption at the time of standby cycles by setting the voltage level of a sub-power source voltage line in accordance with a reference voltage using a voltage setting circuit.

**CONSTITUTION:** When, at the time of stand-by cycles, the operation cycle regulating signals  $\phi_{H1}$ ,  $\phi_{H2}$  are at the H- and L-levels respectively, the p transistor (TR) Q1 and nTR Q2 are conducting, and the voltage of the sub-power source line 2 is higher than a reference voltage Vref 1 outputted by the reference voltage generator circuit 10, the voltage is set at Vref 1 by the differential amplifier of the voltage setting circuit. Similarly, the voltage of the sub-power source line 4 is set at a reference voltage Vref 2. Consequently, the pTR and nTR of the inverters f1 to f3 are controlled and the sub-threshold current is reduced, resulting in the decrease of current consumption at the time of standby cycles. Similarly at the time of operating cycles, the operating voltages immediately change from reference voltages, Vref 1 and Vref 2, to power source voltages, Vcc and Vss respectively, preventing the increase of the access delay.



## LEGAL STATUS

[Date of request for examination] 04.06.2001

[Date of sending the examiner's decision of rejection] 21.09.2004

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 3645593

[Date of registration] 10.02.2005

[Number of appeal against examiner's decision of 2004-21858  
rejection]

[Date of requesting appeal against examiner's 21.10.2004  
decision of rejection]

[Date of extinction of right]